

2.3 Classification of Roads

The roads are named according to the type of constructions, jurisdiction and important function etc. Names like earth, metalled roads, asphalt roads, and concrete roads indicate the type of constructions. Names like local roads, district roads, state highways, national highways indicate their jurisdiction. Names like rectangular roads, ring roads, and diagonal roads, radial and circular roads indicate their geometric shape. Names like Avenue, Promenade (a pleasure drive, with water front at least on side), Boulevards and Parkways indicate their dominant function.

The urban roads are classified as per their importance such as:

- I. Arterial roads
- II. Secondary or sub-arterial roads
- III. Local roads
- IV. Other roads

2.3.1 Arterial Roads:

These are that roads which connect the town to state highway or a national highway. They pass through the city limits and carry a large amount of traffic and therefore should be planned as straight as possible, avoiding sharp curves. Change in direction should be accompanied by smooth curves. These should not enter into the heart of the city at any cost, should have very few road junctions, which should be controlled by roundabouts or fly-overs. They should have no obstructions such as frontage of buildings, loading or unloading areas, parking places, and pedestrians on the carriage way. Further these roads may be made more pleasing creating squares, erecting public and semi- public buildings at the focal points to invite through traffic and encourage speedy transportation by removing all types of traffic barriers. The width of these roads should not be less than 25 m. to 30 m.

2.3.2 Secondary or Sub-arterial Roads

Also known as major roads they run within the limits of the town connecting its important centres. They are designed for slow moving traffic and cover a short distance. The sub- arterial roads act as a link between the arterial roads and local roads. The sub-arterial roads should be improved and provided with safety measures at intersections.

2.3.3 Local Roads

These roads, also known as minor roads, are meant to provide approach to the buildings, officers, shops, schools, colleges etc. There should be no through traffic here and so the local roads are not linked with the arterial roads. These roads need not be straight but can follow the contours of the land.

These roads are used for residential units, shopping and business centres. They therefore form the pocket or precinct roads mainly to serve the non-vehicular traffic. The width of these roads should not be less than 7m to 10 m.

2.3.4 Other Roads:

(a) By-pass Roads

When the main or through roads pass through the congested areas of the towns, there will be considerable reduction in the speed of the vehicles and the smooth flow of the traffic is largely affected resulting loss of time and fuel. In order to maintain the smooth and speedy flow of traffic, bypass roads are constructed. These are also called as loop-roads (figure 2.5) through which the main traffic can pass from one side and again join on the main road on the other side thus avoiding the congested area or ribbon development of the town.

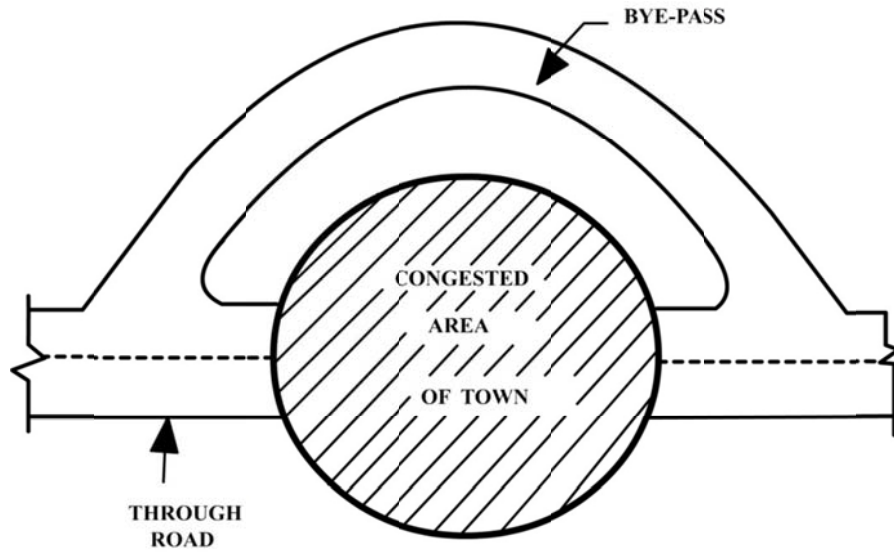


Figure 2.5 By-pass Roads

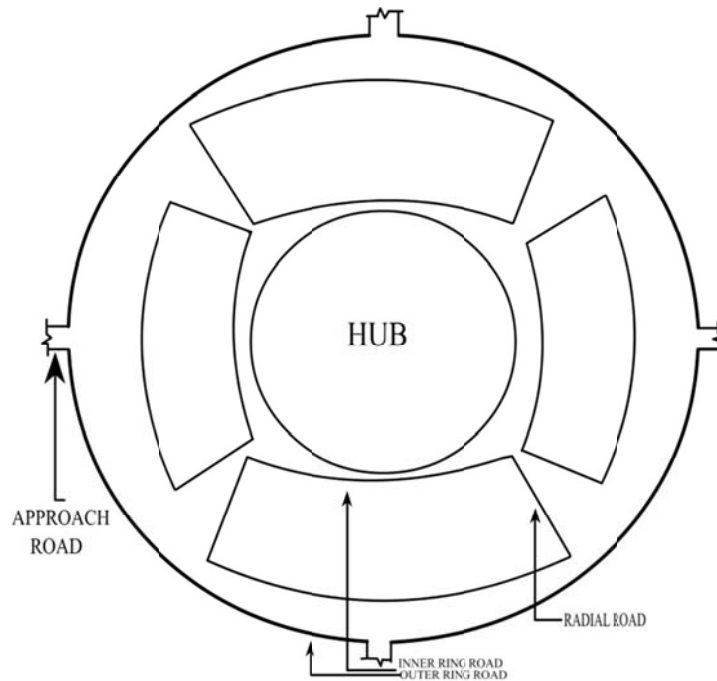


Figure 2.6 Outer and Inner Ring Roads.

(b) Outer and inner Ring Roads

These roads are in the form of circles or rings and hence the name, See Figure 2.6. The outer ring road is meant to divert the through traffic approaching the town. The inner ring road is

meant to divert the local from through traffic. These ring roads help to reduce the traffic congestion of the large towns.

(c) Express-ways

The express-way is meant to function as arterial road for the movement of fast moving traffic in the big metropolitan cities like, Bombay, Calcutta, Delhi etc. Two to three such express-ways are necessarily to be provided around big cities of modern days to face the tremendous growth of the traffic. They however should not form a part of the regular street system, although they should be suitably joined and linked with them. Express-ways are designed with easy gradients and smooth curves so as to carry the traffic speedily and safely. These are originated from the German Autobahnen and Italian Autostrade. These are comparable next to railways in cost and carrying capacity of traffic.

(d) Free-ways

These are the special routes meant to carry fast moving traffic and therefore designed with high standard of alignment, clear visibility, wide carriage way, easy gradient and smooth curves etc.

There is no access from adjacent properties as a result full width of free-way is made available for the fast moving vehicles without any obstruction. The free-ways function as arterial roads passing around the city with controlled access. They also act as main entrances and exits as such they form a part of major road system.